A lot of variables come into play for installers, but particularly so with replacement window installation in membrane/drainage systems with a brick veneer. To help navigate this maze of installation options, the industry is developing a standard practice for the full frame replacement of windows without removal of external brick wall cladding. This practice generally applies to box-framed windows and windows that employ an exterior frontal flange (for integration with the water-resistive barrier, not for attachment).

This is the most recent installment in a series of installation practices developed jointly by the American Architectural Manufacturers Association, aamanet.org, the Fenestration Manufacturers Association, fmausaonline.org, and the Window & Door Manufacturers Association, wdma.com, that go beyond normal installation practices by addressing installation of windows in specific conditions. Other practices in this series govern installation of windows and doors in conditions of extreme wind/water exposure, such as during hurricanes.

This latest edition provides a matrix of installation scenarios the installer can select depending on the position of the replacement window relative to the exterior WRB. It concentrates on three specific considerations:

1. Position of the window relative to the exterior sheathing and external façade,
2. Condition of the interior finish to create an interior air/water seal, and
3. Means for water management at the integration between the window and the building envelope.

The installation methods described have been water tested up to a test pressure of 575 Pa (7.25 psf) using the ASTM E547 or E331 water tests.

Because there are many variations in existing conditions during replacement window installation, the Associations produced a graphic decision tree approach depicting installation alternatives to help direct the installer. It depicts the options for determining the appropriate replacement window type and installation protocol based on:

- existing building envelope conditions;
- existing window condition; and
- type and planned treatment of the wall cladding.

It yields the recommended installation category—i.e. using the existing wood frame, existing aluminum frame with stucco, or full frame replacement with or without cladding removal—as well as frame type.

Six scenarios are then described for window placement and interior treatment, depending on whether the window is installed flush to exterior sheathing or extending beyond the air space and into the brick opening. They include:

- Window installed flush to exterior sheathing, installed against existing trim
- Window installed flush to exterior sheathing, installed against new trim
- Window installed extending beyond the air space and into the brick opening, installed against existing interior trim
- Window installed extending beyond the air space and into the brick opening, installed against new trim
- Window installed extending beyond the air space and into the brick opening, overlapping existing interior finish

The scenarios offer drawings of head, jamb and sill details in various configurations of brick veneer in relation to the building envelope framework, interior trim and WRB positioning. Each considers three water management options: sill flashing that drains to the WRB layer, sill flashing that drains to the exterior through the wall, and isolating the rough opening.

Installation practices such as these are intended to supplement manufacturers’ installation instructions, not replace them, and seek to reduce problems associated with improper installation. When this installation practice has been published, it, like other installation practices in this series, will be available online.

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